## On Aging, Productivity, and Labor Shortages

Notes from a brief panel presentation delivered at a Maine Gerontological Society Conference, S. Portland, Maine, Feb. 2, 2005

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In the year 2000, there were 4.1 persons of working age in Maine (20-64) per person of retirement age (65+). (4.4% in 1990)

Between 2000 and 2025, the working age population is expected to increase by 43,000 (5.7%), while the retirement age population will increase about 121,000 (66%) – about 3 times as much (from SPO forecast).

This would reduce the working age to retirement age ratio from 4.1 to 2.6.

These figures suggest a serious labor crunch if 2.6 people are expected to do the work of 4.1 people.

However, continuing productivity gains will surely enable those 2.6 people to produce more output than 2.6 people could today – they will have the effective output of more than 2.6 people – but how many more?

Over the past 25 years, by the roughest measure of productivity (Real GDP per worker – national figures) productivity increased by 42.8% (or about 1.4% per year).

If this rate of productivity growth continued over the next 25 years, then 2.6 workers could produce the same output as 3.7 people can produce today. But this is less than the 4.1 ratio of working age people to retirement age people that we have today, so clearly the overall standard of living would necessarily decline. Unless more retirement age people worked.

Over the more recent period of the past ten years, however (1993-2003), productivity growth has been stronger than this. Instead of 1.4% per year (as over the past 25 years) it has been nearly 1.9% per year. If this rate of productivity growth were to continue (on average) for the next 25 years, then output per worker would be up nearly 60% over the period instead of 43%, allowing those 2.6 workers to produce as much as 4.1 people can produce today.

In other words, with this higher rate of productivity growth, Mainers could have approximately the same standard of living with only 2.6 workers per retiree as we have today with 4.1 workers per retiree.

But, of course, we have come to expect a steadily increasing standard of living, not merely holding our own. Over the past ten years (1993-2003) Maine real per capita

income (a rough measure of living standards) increased by about 2.7% per year (compounded).

Thus, in order to keep up over the next 25 years, with a lower ratio of workers to retirees, plus achieve the same rate of living standards increase that we have achieved over the past decade, we would need nearly 5% per year productivity growth, which is extremely unlikely – and could only happen with huge technological advances. This illustrates why we must continue to invest in education, R&D, and anything else which can improve the productivity of our work force.

One important way we could continue to improve living standards to some extent in this scenario is to keep more older people in the labor force. Most won't want to continue working full time, but many might appreciate the opportunity for part-time work after they reach normal retirement age, through such means as... job sharing, in-house consulting, paid mentoring, special project work, and training assignments.

All of which make sense at the company or organization level as well. This is especially true in the health services sector where labor shortages are becoming endemic. In Maine, over the past 10 years, nearly 40% of net new jobs have been in this sector. And, in the Fed. Govt's. new NAICS industry coding scheme, the 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> largest Maine industries are in the Health Services sector (these are hospitals, ambulatory health care services, and nursing & residential care facilities).

The older worker generally has a solid work record, a good work ethic, many years of practical experience, and is not likely to be a job hopper. Many companies are already using creative approaches to keeping their older workers on the job a bit longer, and this movement will surely gain momentum as the baby boomers start retiring in huge numbers over the next few years.